

(19) World Intellectual Property Organization
International Bureau



(43) International Publication Date
22 March 2001 (22.03.2001)

PCT

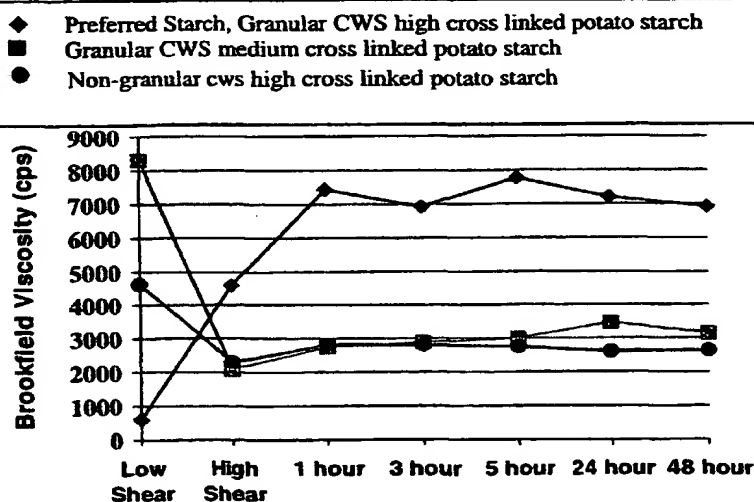
(10) International Publication Number
WO 01/19404 A1

- (51) International Patent Classification⁷: **A61K 47/36**,
A23L 1/0522, C08B 30/00, C08L 3/04, 3/06, 3/08
- (21) International Application Number: **PCT/US00/25343**
- (22) International Filing Date:
15 September 2000 (15.09.2000)
- (25) Filing Language: English
- (26) Publication Language: English
- (30) Priority Data:
60/154,081 15 September 1999 (15.09.1999) US
- (71) Applicant (for all designated States except US): **AVEBE AMERICA, INC.** [US/US]; 4 Independence Way, Princeton, NJ 08543-5307 (US).
- (52) International Patent Classification⁷: **A61K 47/36**,
A23L 1/0522, C08B 30/00, C08L 3/04, 3/06, 3/08
- (72) Inventors; and
- (73) Inventors/Applicants (for US only): **BRINE, Charles, J.** [US/US]; Princeton, NJ (US). **TIELEMAN, Anne,**
- (74) Agent: **CARVIS, Thaddius, J.**; Ware, Fressola, Van Der Sluys & Adolphson LLP, Bradford Green, Building Five, P.O. Box 224, 755 Main Street, Monroe, CT 06468 (US).
- (81) Designated States (national): AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, US, UZ, VN, YU, ZW.
- (84) Designated States (regional): ARIPO patent (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).
- Published:
— With international search report.

[Continued on next page]

(54) Title: **SHEAR THICKENING PREGELATINIZED STARCH**

Model Food System Viscosity Profile



(57) Abstract: A new starch exhibits shear-thickening properties. It is a pregelatinized, cold water swelling starch, comprising: a highly cross linked, stabilized starch processed by heating to render it cold water swelling and leaving a majority of the starch granules intact. According to the process a highly cross linked starch is obtained. Then, the starch is heated under conditions of time, temperature and moisture effective to disrupt less than 50 % of intact starch granules comprised in said starch and to provide the characteristic that when a slurry of said starch is subjected to moderate to high shear the viscosity will increase toward a maximum.

WO 01/19404 A1

WO 01/19404 A1



— *With amended claims and statement.*

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.